Editorial

A Bad Start for Socioeconomically Disadvantaged Children

Evidence is increasing that children in low-income communities have higher exposures to environmental hazards. They are, one could say, being dumped on.

While the data can be characterized as limited, there is a growing picture of children already disadvantaged by poor schools, crime, and parental cycles of unemployment, underemployment, and employment in high-hazard occupations being further handicapped by environments where dangerous chemicals and metals have been left or are being placed or stored today.

The lay person may even wonder why we in science and government feel the need to document what may seem so obvious. It is, after all, a logical explanation for the well-documented disparities in health status. When it comes to keeping dangerous substances away from our homes, we may all say, "Not in my neighborhood," but middle-class and upper-class people say it with more clout. And if the clout fails, and they don't like what's going on, the more affluent can and do move away, while others, obviously, cannot.

But, to reinforce these observations, efforts to document disparities in environmental and occupational exposures continue, with a definite purpose. We need to determine whether disparities in exposure to environmental pollutants exist, and if so, what are the health and economic consequences. These important issues are currently being considered by a new committee of the Institute of Medicine of the National Academy of Sciences.

An earlier landmark in this documentation came in 1987, with the Commission for Racial Justice's *Toxic Wastes and Race*. The commission found race to be more important even than income as a factor associated with living near abandoned hazardous waste sites. It estimated that three out of five African-Americans live in communities with one or more such sites.

Further supporting data have been put forth: The Department of Housing and Urban Development estimates that nearly 13 million children are at significant risk of developmental deficits from ingestion and inhalation of lead in 57 million housing units containing lead-based paint above the federal action level. The Agency for Toxic Substances and Disease Registry calculates that, across all income levels, significantly higher percentages of African-American urban children have unacceptable blood lead levels.

Studies supported by NIEHS and other institutes show that urban areas have the highest concentrations of airborne particulates, carbon monoxide, and ozone, with resulting consequences for the lungs of people living there. The National Center for Health Statistics has found that asthma is significantly more prevalent among African-American children.

Of course, one does not have to live in a city to be a poor or minority child exposed to dangerous substances. Rural low-income communities are at risk of such farm-associated problems as respiratory infections, allergies, dermatitis, sun and heat stroke, urinary tract infections, and injuries. According to the Environmental



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Protection Agency, manual laborers experience as many as 300,000 acute illnesses and injuries each year due to pesticide exposure alone. Agricultural workers have an annual death rate from injuries that is generally five times greater than the rate for workers in other occupations.

In the West, Midwest, and Southwest, the migrant farmworkers are mostly young, married Hispanic men with families. Migrant workers on the East Coast are more likely to be inner-city poor from Jamaica, Puerto Rico, or Haiti.

Our research priorities at the NIEHS, particularly in lead poisoning and asthma, reflect our commitment to low-income and ethnic minorities. Our new guidelines for the academic Environmental Health Centers and recent requests for applications to develop environmental justice research centers and community partnerships in prevention activities effectively integrates research into the community. The institute has taken the unusual step of involving affected populations in the design and conduct of the projects. This represents a new approach to bring environmental health researchers and health care providers together with community members.

In February 1994, NIEHS and other federal agencies and community leaders from throughout the United States met in the Washington, DC, area to discuss "Equity in environmental health: research issues and needs." Knowledge gaps and needs with respect to databases were identified.

To respond to the recommendations made by the conference participants, NIEHS developed a new grants program to strengthen research aimed at achieving environmental justice for socioeconomically disadvantaged and medically underserved populations in the United States. Effective in May 1996, we expect to have provided support for seven such projects. Grantees include Native Americans, Latinos, African-Americans, farmworkers, and other disadvantaged groups.

Another outcome of the February 1994 conference is a new study, commissioned by the NIEHS and other federal agencies, to be conducted by the Institute of Medicine of the National Academy of Sciences. The committee, chaired by Dr. James Gavin of the Howard Hughes Medical Institute, will assess "the role that the health care sector should play in achieving environmental justice, including the associated needs for clinical research, medical surveillance, education, and training of health care providers." The Institute of Medicine will also consider the legal and ethical issues likely to emerge from such research. The committee is expected to present its recommendations by mid-1997. The recommendations will be developed by literature reviews, commissioned papers, and committee deliberations and by site visits and on-location workshops. These visits will be made to urban areas where air pollution, water quality, and toxic wastes are concerns, to rural sites where pesticide toxicity is relevant, and to Native American communities where radioactive waste is the primary issue.

Some people may react to this IOM study by saying, "Oh,

another study, postponing action. Ho, hum." But to me, and to the outstanding men and women on the committee, it is an opportunity to establish, objectively, that the impact of environmental pollution on the health status of residents of socioeconomically disadvantaged communities is serious enough to require national attention. In my opinion, much of the morbidity and mortality in such communities is preventable through changes in public health and environmental regulatory policies.

Finally, while children from socioeconomically disadvantaged communities may be disproportionately impacted by our public health and regulatory policies, it is important to emphasize that many toxicants represent greater threats to all children than to adults due to both biological and behavioral differences.

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